

STUDIES IN BIGNONIACEAE IX: NEW SPECIES  
OF DENDROSICUS AND PACHYPTERA

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The necessity of resurrecting the name Dendrosicus for the plants formerly known as Enallagma is discussed elsewhere (Gentry 1973a) at some length. In recapitulation, the argument is that Enallagma, which has been conserved over the earlier Dendrosicus, should be united with Amphitecna. The latter thus becomes an unconserved junior synonym of Dendrosicus. The genus proves to contain many more species than the three of Enallagma and one of Amphitecna which have been recognized. Williams (1973) has recently described four new species (under Amphitecna) three of which I would recognize as distinct. Four more new species are described below bringing the total number of recognized species of Dendrosicus to eleven. To avoid use of unpublished combinations, already-described taxa are discussed here under their old names rather than the new combinations in Dendrosicus which are now in press. (Gentry, 1973a)

This group is difficult to work with in the herbarium. It is very poorly collected. Most specimens have only one or two flowers and important characters of corolla shape and inflorescence placement are lost on mounted specimens. The fruits, besides being very similar for most of the species, are too large to be easily pressed and are rarely collected. As a result of such problems, several more apparently new species remain undescribed due to inadequate material.

DENDROSICUS SPATHICALYX A. Gentry, sp. nov. - Arbor parva. Folia alternata, anguste elliptica vel anguste obovata-elliptica, venulis intricata impressis, pagina sic minute exasperata. Inflorescentia uniflora, flore in brachyblasto bracteato in rama vetere. Calyx membranaceus, spathaceus. Corolla viridi-albida, campanulata, plica transversali in fauce, lobis connatis. Stamina subexserta. Ovarium conicum rotundatum, lepidotum, placentis duabus parietalibus prope basim connatis, ovulis in utraque irregulariter 8-seriatis. Fructus ellipsoideus, extus durus, intus pulposus, seminibus in pulpa inclusis.

Small leaning tree 5 m tall, 15 cm dbh., the twigs decurrent below the nodes. Leaves alternate, narrowly elliptic to narrowly obovate-elliptic, acute to long acuminate, cuneate or attenuate at base, essentially sessile, the extreme base swollen and woody, conspicuously jointed at node, 7.5-16 cm long, 2.1-4.3 cm wide, chartaceous, the secondary nerves 6-12 on a side, raised very slightly above, conspicuously below, the veinlets minutely and intricately impressed above and below, the surface thus roughened and shagreened. Inflorescence a single flower borne from a bracteate short shoot on an older twig, the pedicel glabrous, red when fresh. Calyx membranaceous, 4-4.1 cm long, ca. 2 cm wide, spathaceously split adaxially to 0.8-1 cm from base, with a tendency to tardily circumcissile dehiscence, glabrous, light green when fresh. Corolla cream to whitish at base, becoming greenish white toward mouth, campanulate with a transverse fold in throat, 5.5-5.8 cm long, 1.8-1.9 cm wide at mouth of tube, the tube 3.7-3.8 cm long, the lobes fused into a reflexed rim, this 1.7 cm wide; glabrous with a glandular epidermis without and within, becoming stalked glandular-lepidote distally without. Stamens subexserted, the anther thecae slightly divergent, each 7-8 mm long and 1.5-2 mm wide, the anterior filaments 2.5-2.6 cm long, inserted 1.7-1.8 cm from base of tube, the posterior filaments 2.3-2.4 cm long, inserted 2.0-2.1 cm from base of tube, the staminode 1.1-1.2 cm long, inserted 1.0 cm from base of tube, bent straight out from corolla. Pistil partially destroyed in all flowers examined; ovary rounded conical, 4 mm long, 3-4 mm wide, lepidote, the ovules widely spaced, irregularly 8-seriate on each of two projecting parietal placentae, the placentae almost meeting but fused only at extreme base; disk annular-pulvinate, 2 mm long, 9 mm wide. Fruit a pepo or calabash, ellipsoidal, pointed at tip.

Holotype: PANAMA: Panamá: Near top of Cerro Campana above Florida State Cabin, alt. ca. 1000 m, small leaning tree, 6 inches dbh, 5 m tall. Flowers greenish-white, calyx light green, pedicel red, from bracteate short shoots, calyx tardily calypterate-dehiscent, 3 Sep 1972 Gentry 5769 (MO, isotypes to be distributed)

Additional collections examined: PANAMA: Panamá: Cloud forest on Cerro Campana above Su-Lin Motel, tree 6 m, fruit green, tinged with purple, 25 May 1971, Croat 14765

(MO); Cerro Campana, tree 7 m tall, fruit purplish, on large branch (cauliflorous), flower buds on ground, 7 Apr 1971, Dressler 3943 (MO).

This species is known only from the tropical wet forest life zone on top of Cerro Campana. The thin, dorsally split spathaceous calyx is diagnostic. Its bracteate short shoots relate it to A. macrophylla (Seem.) Miers ex Baill. and A. silvicola L. Wms. as does the intricately impressed finer venation of the leaves. It is possible that an additional fruiting collection, Kennedy & Foster 2147 from the Rio Guanache, Colón Province, Panama, represents D. spathicalyx. The leaves seem identical, but I am at present unable to distinguish this species positively from D. isthmicus without buds or flowers.

DENDROSICUS KENNEDYI A. Gentry, sp. nov. - Arbor parva. Folia alternata, glabra, oblanceolata vel anguste obovata-elliptica, acuta vel acuminata, basi cuneata. Inflorescentia uniflora, flore in brachyblasto bracteato in rama vetere vel trunco. Calyx membranaceus, bipartitus, lobis acute apiculatis. Corolla albida, campanulata, plica transversali in fauce, lobis connatis. Stamina subexserta. Ovarium lepidotum, placentis duabus parietalibus, ovulis in utraque placenta pluriseriatis. Fructus ellipsoideus, extus durus, intus pulposus, seminibus in pulpa inclusis.

Small tree. Leaves simple, alternate, glabrous or sparsely lepidote, oblanceolate to narrowly obovate, the apex acute to acuminate, base cuneate, attenuate, the petiole not differentiated, 16-38 cm long, 5-14 cm wide, the midrib conspicuously raised below, the main veins drying whitish below, leaf surface gray above and grayish below, the veinlets sometimes minutely impressed below. Inflorescence one or two flowers from a conspicuously bracteate abbreviated short shoot on older branches or trunk, the pedicels 1.5-3 cm long. Calyx bilabiate split almost to base, 1.5-3.0 cm long, each lobe ca. 1 cm wide, conspicuously apiculate. Corolla greenish white, 4.3-4.8 cm long, 1.3-1.9 cm wide at mouth of tube, the tube 2.7-3.5 cm long, the lobes fused into a reflexed rim. Stamens subexserted, the anther thecae somewhat divergent, each 4.5 mm long, 1.5-2 mm wide, the filaments 2.4-2.8 cm long, inserted 1.3-1.5 cm from base of tube. Pistil ca. 4 cm long, the ovary rounded conical, 2-3 mm long, 2 mm wide, densely lepidote, the ovules several seriate on two

parietal placentae; disk annular pulvinate. Fruit a pepo or calabash, 11.5-13 cm long and 5.5-7 cm wide, ellipsoid, apiculate at ends with thick seeds 1.3-1.5 cm long, embedded in the pulp.

Holotype: PANAMA: Bocas del Toro: Almirante, Fila de Almirante, tree 8 m, leaves clustered at ends of branches, cauliflorous, leaves coriaceous, dark green above, olive green below, flower with no odor, 25 Nov 1972 Kennedy & Dressler 1258 (MO).

Additional specimens examined: COSTA RICA: Limón: 3 km E of El Carmen, alt. 10 m, treelet 4 m, one cauliflorous green flower present, disturbed primary forest being cut to plant Bandeco Farm #3. Lent 2427 (F). PANAMA: Bocas del Toro: Changuinola Valley, Cooper & Slater 36 (US); tree 7 m, leaves crisp to leathery, leaf dark green above, pale yellow-green below, flower pale whitish-green throughout, calyx pale green, flower stinks, cauliflorous, leaves whorled at branch tips, 25 Nov 1972 Kennedy & Dressler 1261 (MO, PMA); above Quebrada Huron on Cerro Bonyic, tree, the first limb 6 m off ground, 12 cm diameter, fruit green turning brown, ovoid, terete, apiculate, 13 Apr 1968 Kirkbride & Duke 615 (MO); Fish Creek mountains, vicinity of Chiriquí Lagoon, flowers cream, 18 Apr 1941 Wedel 2258 (GH, MO).

This species appears to be restricted to the tropical wet forest and premontane wet forest of the Atlantic slope of Costa Rica and western Panama. It is distinguished in Costa Rica and Panama by its thin, sharply pointed, deeply bilabiate calyx. Among its closest allies are A. macrophylla (Seem.) Miers ex Baill. of Mexico and Guatemala and D. isthmicus. The former differs most conspicuously in its 8-costate rather than smooth fruit, the latter in mostly terminal flowers, ovary bilocular to above middle, and blunt-tipped calyx lobes. The Kirkbride & Duke and Wedel collections cited above have shorter leaves which are widest near the middle and are somewhat intermediate between D. kennedyi and D. isthmicus. Inadequate material prevents proper evaluation of these collections at the present time.

DENDROSICUS ISTHMICUS A. Gentry, sp. nov. - Arbor parva. Folia alternata, glabra, anguste elliptica, acuta vel acuminata, basi cuneata. Inflorescentia uniflora vel biflora, floribus terminalibus. Calyx membranaceus,

bipartitus, lobis rotundatis. Corolla viridi-alba, campanulata, plica transversali in fauce, lobis connatis. Stamina subexserta. Ovarium lepidotum, placentis duabus parietalibus apice, supra medium connatis ovulis in utroque loculo pluriseriatis. Fructus ellipsoideus, extus durus, intus pulposus, seminibus in pulpa inclusis.

Small tree to 10 m. Leaves simple, alternate, glabrous, narrowly elliptic, acute to acuminate, base cuneate, the petiole less than 5 mm long or lacking, 7-32 cm long, 2.8-10 cm wide, the midrib raised below, the main veins drying whitish or yellowish below, leaf surface gray or olive-gray above and below, the veinlets sometimes minutely impressed below. Inflorescence of one or two flowers, usually terminal, the pedicel 2-4 cm long. Calyx bilabiate split almost to base, 2.3-3 cm long, glabrous, with a few plateshaped glands, each lobe 1.3-1.8 cm wide, obtuse. Corolla greenish white, 3.4-6 cm long, 1.7-2 cm wide at mouth of tube, the tube 2.4-3.5 cm long, the lobes fused into a reflexed rim, tube glabrous, the rim lepidote papillate. Stamens subexserted, the anther thecae divergent, each 4-5 mm long, 1-2 mm wide, the filaments 2-3 cm long, inserted ca. 1.5 cm from base of tube. Pistil ca. 4 cm long, the ovary oblong, 2-3 mm long, ca. 2 mm wide, glandular lepidote, 2 locular in lower 2/3 with the ovules several seriate on 2(?) indistinct axillary placentae in each locule, unilocular with parietal placentation near top, disk annular pulvinate. Fruit a pepo or calabash, to 14 cm long and 7 cm wide, ellipsoid, apiculate at ends with thick seeds embedded in the pulp.

Holotype: PANAMA: Chiriqui: San Bartolo de Limite, 21 km. WNW of Puerto Armuelles, corolla greenish white, understory tree, 5 m tall, rich forest, altitude 400 m, 19 Feb 1973, Liesner 75 (MO).

Additional specimens examined: COSTA RICA: Puntarenas: Osa Peninsula near top of ridge W of Tropical Science Center Station, flowers white Mathias s.n. (F). San Jose: Basin of El General, altitude 675-900 m, tree 8 m, flowers green, terminal or cauline, by forest stream Skutch 4825 (MO, US), small tree, flowers greenish, bank of river Skutch 4940 (F, MO, US). PANAMA: Chiriqui: Progreso, tree 30-35 ft. by 4-6 in., slender bole, thin crown, wood medium hard and heavy, coarse, fairly regular grain, conspicuous flowers, Cooper & Slater 277 (F, NY, US);

Burica Peninsula, Quebrada de Fraile, fruit washed up on beach, Liesner s.n. (MO). Coclé: El Valle, vicinity of La Mesa, altitude 900 m, tropical wet forest, shrub, 2 m, bud green, pedicel red Gentry 7443 (MO).

This species is apparently restricted to the tropical wet forest life zone of eastern Costa Rica and Western Panama. It has been collected to date only on the Pacific side of the Cordillera Central. Apparently it flowers throughout the year.

The correct status of this species is difficult to evaluate from the limited material available. Most of the collections have only a single flower and the only mature fruit was found washed up on a beach. These specimens were originally determined as Enallagma latifolia although they appear more closely related to E. sessilifolia. Dendrosicus isthmicus differs from E. latifolia in leaf shape and texture, fruit shape, and especially in ecology. It differs from E. sessilifolia in its generally smaller, narrowly elliptic (rather than oblanceolate to narrowly obovate) leaves with pale-drying midveins and lower altitude habitat. Although differences in calyx thickness and degree of splitting are somewhat relative, they appear to be constant. The uneven splitting and thickness of the calyx of E. sessilifolia usually results in a whitish edging along the split edges of its black-drying calyx especially near the base of the splits; in D. isthmicus the thinner calyx lacks a whitish edging along the lines of rupture.

The closest relative of D. isthmicus is certainly D. kennedyi and I am unable to reliably separate these two species on the basis of sterile or fruiting material. Terminal (noted as terminal or cauline on one collection) placement of flowers, blunt-tipped calyx, and geographic disjunction appear sufficient for separation of this species from D. kennedyi, however. In addition, the leaves of D. isthmicus are usually much smaller and its ovary (based on a single dissection for each species) is bilocular to above the middle rather than only at the extreme base as in D. kennedyi. Although additional collections could show that these two plants are better treated as a single species, the current evidence points to their separation.

Two additional Central American collections are also related to this species. Yuncker, Koepper, & Wagner 8724 (F, MO) from Atlantida Department, Honduras, and Steyermark 41796 (US) from Izabal Department, Guatemala have similarly elliptic, though somewhat larger, leaves. The calyx of the Yuncker et al. collection agrees with D. isthmicus but the tree was noted to be cauliflorous; the Steyermark collection is sterile. Although these two collections seem separable on the basis of leaf size and texture as well as geography, inadequate material makes it inadvisable to describe them at the present time.

DENDROSICUS STEYERMARKII A. Gentry, sp. nov. - Arbor ad 8 m, Folia alternata, glabra, sessilia, oblanceolata, acuta vel acuminata, basi cuneata. Inflorescentia verosimiliter uniflora floribus terminalibus. Calyx spathaceus, apiculatus, Corolla tubulocampanulata, lobis connatis. Stamina subexserta. Ovarium placentis duabus parietalibus apice, ad medium connatis ovulis in utroque loculo pluri seriatis. Fructus globosus vel oblongus.

Tree 8 m tall. Leaves simple, sessile, alternate, glabrous, oblanceolate, acute to shortly acuminate, the base cuneate-attenuate, 11-25 cm long, 2.8-6.5 cm wide, subcoriaceous, the main nerves raised below, drying gray above, brownish gray with tan main veins below. Inflor-escence apparently a single terminal flower (single detached flower seen), the pedicel ca. 4.8 cm long. Calyx spathaceously split to base, apiculate at tip, 3.2 cm long, glabrous. Corolla ca. 4.5 cm long, 1.4 cm wide at mouth of tube, the tube 2.8 cm long, the lobes  $\frac{1}{2}$  fused into a reflexed rim, tube mostly glabrous, slightly lepidote-papillate at top and on lobes. Stamens subexserted, the anther thecae divergent, each 4 mm long, filaments ca. 2.5 cm long, staminode ca. 1 cm long, insertion 1-1.5 cm from base of tube. Pistil ca. 3.5 cm long, ovary oblong-conical, 3 mm long, 2 mm wide, minutely lepidote-papillate, bilocular in lower half with ovules irregularly 2-3-seriate on 2 axillary placentae in each locule, unilocular with ovules several seriate on each of 2 protruding parietal placentae at top; disk pulvinate, 1.5 mm long, 3-4 mm wide. Fruit (not seen; after Steyermark 45080) round to oblong.

Holotype: GUATEMALA: Huehuetenango: Canyon tributary to Río Trapichillo, between Democracia and canyon of Chamushú, alt. 1000-1100 m, tree 25 ft. tall, 24 Aug 1942, Steyermark 51252 (F).

Additional collection examined: GUATEMALA: Alta Verapaz: Along Rio Icvolay between Río Apia and Río Soctelá, 8-10 miles NW of Cubilquitz, alt. 200-210 m, common type found along river banks, tree 25 ft. tall, leaves subcoriaceous, deep green above, dull green beneath, fruit round to oblong, 14 Mar 1942, Steyermark 45080 (F).

One other non-flowering collection may be referable to this species. Matuda 17649 (F) from Corcega, Pueblo Nuevo Com., Chiapas, Mexico agrees with D. steyermarkii in the shape and size of its leaves which are, however, thinner than in the Guatemalan collections.

This species is readily distinguished from other Guatemalan species of the genus by its spathaceous calyx. Vegetatively it is most like E. donnell-smithii (Sprague) Standl. which has generally smaller thinner leaves and a distinct petiole. The only other species of Dendrosicus with a spathaceous calyx is D. spathicalyx of Panama which has very different narrowly elliptic leaves with intricately impressed veinlets and almost completely parietal placentation.

Common names reported for D. steyermarkii are "morro" and "a-jo-nocht".

AMPHITECNA SILVICOLA L. Wms., Fieldiana, Bot. 36:25.1973. The fruit of Amphitecna silvicola was unknown to Williams (1973) when he described the species on the basis of a single flowering collection from Chiapas, Mexico. A fruiting collection of this species, Miranda 5154 from Rancho Concepcion y Cerro Brujo, Chiapas, is deposited at the US National Herbarium and vegetatively matches the MO isotype (Breedlove 10064) of A. silvicola. The immature fruit is ovoid, 6.5 cm long, to 2.7 cm wide, acute at the apex and rounded at the base, with the surface unridged but somewhat wrinkled in drying. Thus the fruit of A. silvicola resembles that of the majority of species of Dendrosicus rather than the conspicuously costate one of A. macrophylla with which Williams related it on the basis of floral and vegetative characters.

PACHYPTERA PARVIFOLIA A. Gentry sp. nov. - Frutex scandens. Ramuli teretiusculi, sine consociibus glandularum in nodis inter petioles. Pseudostipulae minimae, minores quam 1 mm longae. Folia bifoliolata, interdum cirrho simplici apice peltato, foliolis ellipticis, apice basique rotundatis, minimis, plus minusve 3-nervatis, lepidotis. Inflorescentiae axillares, ebraceatae. floribus duobus vel tribus. Calyx campanulatus, truncatus vel non profunde bilabiatus, inconspicue lepidotus. Corolla lavandulacea vel alba, tubulo-campanulata, extus furfuraceo-puberula, intus plerumque glabra. Stamina thecis divaricatis, 2-4 mm longis, connectivo producto. Pistillum ovario oblongo, lepidoto. Discus fere sphaericus. Capsula (ex memoria) linearis-oblonga, aliquantum lignosa, seminibus tenuibus, alis bruneolis.

Vine, the branchlets subterete, the smallest striate and more or less angulate, inconspicuously and glabrescently capitate-puberulent or lepidote, the nodes without interpetiolar glandular fields; pseudostipules minute, less than 1 mm long, rhombic, acuminate, the margin much thinner when young. Leaves 2-foliolate, often with a tendril; leaflets elliptic, rounded or emarginate to obtuse, the base asymmetrically rounded, very small, to 3 cm long and 1.5 cm wide, membranaceous, more or less 3-nerved at base, the secondary veins obscure, especially when young, conspicuously glandular-lepidote or lepidote-punctate, especially below, the glands larger and more crowded at base below; tendril simple, terminating in a peltate disc which becomes woody and to 8 mm in diameter at maturity; petiolules 1-8 mm long, petiole 5-8 mm long, petiolules and petiole puberulous above. Inflorescences in the axils of fallen leaves, short, ebracteate, 2-3-flowered, the peduncle 5-6 mm long, the pedicels 1.2-1.5 mm long, inconspicuously lepidote. Calyx campanulate, truncate or very shallowly bilabiate, the margin sometimes turned under, 5-6 mm long, 5-8 mm wide, inconspicuously lepidote or with a very few scattered simple trichomes. Corolla light purple or white; tubular-campanulate, 3.5-5 cm long, 0.8-1.2 cm wide at mouth, the base narrowed, the tube 2.5-4 cm long, 0.8-1.2 cm wide at mouth, the lobes 1-1.3 cm long; scurfy puberulous without, mostly glabrous within, pubescent at level of stamen insertion. Stamens didynamous, the longer filaments 1.6-2.5 cm long, the shorter filaments 1.1-1.8 cm long, the anther thecae divaricate, each 2-4 mm long,

glabrous, the connective extended 0.5 mm, the staminode ca. 2 mm long; insertion 5-10 mm from base of corolla tube. Pistil 2.8-2.9 cm long, the ovary oblong, subtrigonal, 3-4 mm long, 1 mm wide at base, slightly wider at top, densely and minutely lepidote, the ovules 4-seriate in each locule but appearing 2-seriate in most cross sections; disc almost spherical, 2 mm long, 3 mm wide. Capsule linear-oblong, rather woody, ca. 25 cm long and 2.5 cm wide, tan; seeds thin, the wings brownish, not sharply differentiated from the body.

Holotype: COLOMBIA: Sur de Santander: vicinity of Puerto Berrio, between Carare and Magdalena Rivers; raizudo, large liana, flowers light purple, forest at about 200 meters, 22 Apr 1937, Haught 2179 (MO).

The distinctive juvenile stage of this species has been collected a number of times from Honduras to Bolivia. I have seen only two flowering collections of the species, the type from Colombia and a specimen from Amazonian Brazil. It is apparently restricted to the tropical wet forest life zone.

Additional collections examined: HONDURAS: Atlantida: Hills above Lancetilla, 1000 ft. alt., climbing up tree trunks, Yuncker 5083 (MO). PANAMA: Bocas del Toro: Water Valley, vine, Wedel 687 (MO); top of fila above Almirante, juvenile bignon, Gentry 2769 (MO). Darién: Between upper Río Membrillo and Camp 7 on the construction road to San Blas, alt. 100-800 meters, appressed vine on tree trunk, fruits (actually tendrill disks) greenish. Duke 10875 (MO) COLOMBIA: Choco: Field Camp 15 at junction of oil survey lines 4 and 5 on upper Río Brazo Viejo, juvenile appressed to trunk of tree, Gentry 5237 (MO). PERU: Junín: Río Pinedo N of La Merced, alt. 700-900 m, herb, climbing on tree trunks, dense forest, Killip & Smith 23664 (US). Loreto: Santa Rosa, lower Río Huallaga below Yurimaguas, alt. about 135 meters, dense forest, subliguous vine, appressed to tree trunks, Killip & Smith 28930 (MO). BOLIVIA: Beni: Río Chaparé-Mamoré, alt. ca. 250 meters, Werdermann 2177 (MO). BRAZIL: Amazonas: Near mouth of Río Embira (tributary of Río Tarauaca) lat. 7° 30' S, long. 70° 15' W, vine with white flowers, on varzea land, Krukoff 4799 (MO).

The juvenile stage is a tenuous vine with extremely small bifoliolate leaves, each bearing a short tendril terminated by a peltate disc. These plants grow closely appressed against the trunks of supporting trees, attached by the tendril-discs. Disc-tipped tendrils are rare in the Bignoniaceae; to my knowledge only *Pithecoctenium echinatum* (Jacq.) K. Schum., *Glaziovia bauhinioides* Bur. ex Baill., *Distictis lactiflora* (Vahl) DC., and *Bignonia capreolata* L. have similar discs. Sandwith (in herb.) has tentatively identified sterile juvenile material of *Pachyptera parvifolia* with *Glaziovia* because of this resemblance. However, the monotypic *Glaziovia*, known only from southeastern Brazil, has completely different flowers and fruits, much like those of *Amphilophium*. *Pithecoctenium*, with its greatly thickened corolla and calyx, six-angled stems, and echinate fruit, seems also far removed from the new species. *Bignonia*, a monotypic genus of the southeastern United States, is probably closer to *P. parvifolia* but differs in such characters as its much divided tendrils, foliaceous pseudostipules, yellow corollas, and thinner capsule valves. *Distictis* seems an even closer ally of *P. parvifolia* but differs in its ribbed 6-angled branchlets (those of *P. parvifolia* are sometimes 6-sided near the nodes but never ribbed), apparently thicker corolla, thicker calyx, usually trifid tendril, relatively short, thick, pubescent capsule, and especially its ecolpate pollen. On the other hand the inflorescence, calyx, and corolla of *P. parvifolia* closely resemble those of *Pachyptera hymenaea*. The elongate fruit is also similar to that of some *Pachyptera* species as are the thin, rather wide, brownish-winged seeds. The lavender (to white) flowers and 3-colpate pollen grains also agree with *Pachyptera*. The most obvious difference of *Pachyptera* is in its trifid tendrils, although it is probably significant that all genera with disc-tipped tendrils also have their tendrils divided and *Distictis lactiflora* (Vahl) DC. may have simple or 2 or 3-parted tendrils on the same plant. The correlation thus suggested between disc-tipped and divided tendrils, may be interpreted to support the affinity of this species with trifid-tendrilled *Pachyptera*.

A special note on the fruit of this species is in order. I collected fallen capsule valves and seeds of *P. parvifolia* at two localities on the Rio Brazo Viejo,

Choco, Colombia in an area where its juvenile vines were common. The specimens were subsequently destroyed by the Summit Herbarium fire (June 1972) before I had measured or critically examined them--however, some seeds which had been planted germinated, giving rise to the typical juvenile form and establishing the identity of the fruiting material with this species. My general impression of the fruit was that it was similar to that of Ceratophytum in size, color, and form but much more compressed. Although destruction of the collection prevents a complete description, the general form of the fruit is established.

Although inclusion of P. parvifolia in Pachyptera significantly stretches the concept of that genus, the only apparent alternative is erection of a new monotypic genus. For the present, it seems best to emphasize the apparent affinities of the species rather than its peculiarities, especially in view of the problems of too narrow generic delimitations in this family (Gentry, 1973b).

#### Literature Cited

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